500.26379R00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	KAKU, et al
Filed:	August 5, 2003
Reissue of Patent No.:	5,105,409
Issued:	April 14, 1992
For:	METHOD AND APPARATUS FOR OPTICAL RECORDING AND REPRODUCING WITH TRACKING SERVO REDUCING TRACK OFFSET

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97 & 1.98

Mail Stop DD
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 5, 2003

Sir:

In the matter of the above-identified application, this information disclosure statement is being submitted with the following citation as specified in 37 CFR 1.97(d).

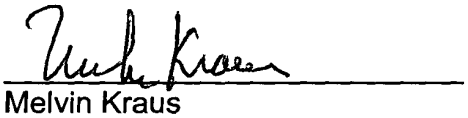
> "A copy of any patent, publication or other information listed in an information disclosure statement is not required to be provided if it was previously cited by or submitted to the Office in a prior application, provided that the prior application is properly identified in the statement and relied upon for an earlier filing date under 35 U.S.C. 120."

Applicant(s) are submitting herewith a copy of Form PTO-1449 which list documents cited in parent application(s) Serial No. 07/230,971, filed August 11, 1988, now U.S. Patent No. 5,105,409.

It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (500.26379R00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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Form PTO-1449 Equivalent

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No. 500.26379R00
Serial No. (not yet assigned)
Applicant: KAKU, et al
Filing Date: August 5, 2003
Group:

U.S. Patent Documents

Examiner Initials	Document No.	Date	Name	Class Subclass	Filing Date If Approp.
	4,651,314	3/87	Yoshikawa et al		
	4,742,505	5/88	Takeuchi et al		
	4,748,609	5/88	Yonezawa et al		
	4,751,695	6/88	Kaku et al		
	4,774,698	9/88	Henmi et al		
	4,785,442	11/88	Ohtake et al		
	4,807,210	2/89	Kaku et al		
	4,819,220	4/89	Miyazaki et al		

Foreign Patent Documents

Document No.	Date	Country	Class Subclass	Translation Yes No

Other Documents (including Author, Title, Date, Pertinent Pages, etc.)

Examiner

Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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For: METHOD AND APPARATUS FOR OPTICAL RECORDING AND REPRODUCING WITH TRACKING SERVO REDUCING TRACK OFFSET

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P.O. Box 1450
Alexandria, VA 22313-1450

August 5, 2003

Sir:

In accordance matter of the above-identified application, applicant(s) is/are submitting herewith copies of the documents listed in the attached form equivalent to Form PTO-1449 for the Examiner's consideration.

This information disclosure statement is being submitted with the accompanying reissue application papers.

To the extent that, the documents listed on the attached form equivalent to Form PTO-1449, are not in the English language, the requirement of 37 CFR 1.98(a)(3) for a concise explanation of the relevance is satisfied by the following remarks.

In accordance with the features of amended independent claims 1, 5 and 8 of the reissue application, a pulse width of an extracting pulse is greater than the pulse width of a writing pulse, it being noted that during the extracting pulse, a reflective

signal is not utilized for the tracking servo operation. This structural arrangement enables removal of the adverse effect of fluctuation or unbalance of the reflected light generated by the writing pulses from the track offset detection system. More particularly, Figs. 3(b) and 3(c) illustrate reflected light beams in response to the application of the writing pulse signal which are detected by light detecting elements, and as illustrated, such reflected light beam signals have an undershoot which extends beyond the width of the writing pulse signal which causes a fluctuation or unbalance. In accordance with the present invention, the extracting pulse has a pulse width as illustrated in Fig. 3(e) which is greater than the writing pulse and during the extracting pulse, the reflective signal is not utilized for the tracking servo operation, such that track offset is decreased.

U.S. Patent No. 4,503,324

U.S. Patent No. 4,503,324 (Yokota) shows in Fig. 3B a data pulse train (h) for recording which may be considered to correspond to a writing pulse and Fig. 3C shows a switch signal e for recording which may be considered to correspond to an extracting pulse. The switch signal (e) is synchronized with the data pulse (h) and upon receipt of the signal (e), switch circuits 26a and 26b are turned off. The switch circuit 26a therefor generates a signal (f) which has no component (C) as shown in Fig. 3D (col. 3, line 59 to col. 4, line 20). The switch signal (e) is used for controlling focus of the laser beam (col. lines 14-19). Since the switch signal (e) is synchronized with the data pulse (h), it is apparent that the width of the data pulse in Fig. 3B, which corresponds to the writing pulse, is equal in width to that of the switch signal (e), which may be considered to correspond to the extracting pulse. Thus, U.S. Patent No. 4,503,324 does not disclose a width of an extracting pulse being greater than that of a writing pulse width, noting that in U.S. Patent No. 4,503,324, the switch signal (e) is applied to a focus signal rather than a tracking signal as provided by the present invention.

JP 59-157877

JP 59-157877 for which an English language translation is submitted, shows in Fig. 3 a sample hold circuit 21 which passes a tracking error signal output only when the area with no reflected light beams varying, that is, the area with no holes, is being tracked for reproducing information and only when the area, which does not vary the reflected light beams, that is, the area which does not punch holes, is tracked for recording information, as described at page 8, lines 2-10 of the translation. The hold period is synchronized with the data pulse and therefor, the width of the recording/reproducing pulse equals to the period of the sample hole. JP 59-157877 does not disclose that the pulse width of an extracting pulse is greater than the pulse width of a writing pulse and is not directed to the problem of undershoot as in the present invention.

JP 57-208642 (Serial No. 56-94424, corresponding to U.S. Patent No. 4,503,324)

Fig. 4B in U.S. Patent No. 4,408,314 shows a recording information pulse and Fig. 4C shows the output signal from a sample hold circuit. The normal level 142 of the signal waveform of Fig. 4B immediately before the time periods of the signals 144 and 146 is held only during the time periods. (Col. 5, line 57 - col. 6, line 1). However, the signals of Fig. 4B is held only during the periods of the signal by the sample hold circuit so that the width of the recording pulse in Fig. 4B equals to the period of the sample hold. Applicants note that JP 57-208642 utilizes different reference numerals for the switch circuits of U.S. Patent No. 4,408,314 and switch circuits 15_1 and 15_2 of JP 57-208642 correspond to switch circuits 26a and 26b in U.S. Patent No. 4,503,324. The following is a partial translation of JP 57-208642 of page 3, right bottom part, last line, through page 4, left upper part, line 6, which corresponds to col. 4, lines 6-12 of U.S. Patent No. 4,503,324 and provides:

> Both the switch circuits 15_1 and 15_2 receives a switch signal e which is generated in synchronism with the data pulse h shown in Fig. 3, then the switch circuits 15_1 and

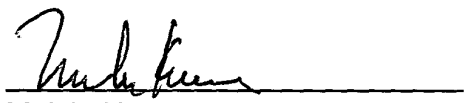
15_2 are turned off only during the period h. Therefore the output signal from the switch circuits is shown in Fig. 3, and the signal c is taken away completely.

As is apparent, in JP 57-208642 and U.S. Patent No. 4,308,314, the pulse width of an extracting pulse is not greater than the writing pulse width as recited in independent claims 1, 5 and 8 and the dependent claims of this reissue application, and therefore, such documents do not overcome the undershoot problems to which the present invention is directed.

It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (500.26379R00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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Form PTO-1449 Equivalent	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 500.36379X00 Serial No. (not yet assigned) Applicant: T. KAKU, et al Filing Date: August 5, 2003

U.S. Patent Documents

Examiner Initials	Document No.	Date	Name	Class Subclass	Filing Date If Approp.
	4,408,314	10/83	Yokota (corresponds to JP 59-157877)		
	4,503,324	3/85	Yokota		

Foreign Patent Documents

Document No.	Date	Country	Class Subclass	Translation Yes	Translation No
57-208642	12/82	Japan		(partial)	
59-157877	9/84	Japan		X	

Other Documents (including Author, Title, Date, Pertinent Pages, etc.)

Examiner Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.